# § 125.3 Technology-based treatment requirements in permits.

- (a) General. Technology-based treatment requirements under section 301(b) of the Act represent the minimum level of control that must be imposed in a permit issued under section 402 of the Act. (See §§122.41, 122.42 and 122.44 for a discussion of additional or more stringent effluent limitations and conditions.) Permits shall contain the following technology-based treatment requirements in accordance with the following statutory deadlines;
- (1) For POTW's, effluent limitations based upon:
- (i) Secondary treatment—from date of permit issuance: and
- (ii) The best practicable waste treatment technology—not later than July 1. 1983: and
- (2) For dischargers other than POTWs except as provided in §122.29(d), effluent limitations requiring:
- (i) The best practicable control technology currently available (BPT)—
- (A) For effluent limitations promulgated under Section 304(b) after January 1, 1982 and requiring a level of control substantially greater or based on fundamentally different control technology than under permits for an industrial category issued before such date, compliance as expeditiously as practicable but in no case later than three years after the date such limitations are promulgated under section 304(b) and in no case later than March 31, 1989;
- (B) For effluent limitations established on a case-by-case basis based on Best Professional Judgment (BPJ) under Section 402(a)(1)(B) of the Act in a permit issued after February 4, 1987, compliance as expeditiously as practicable but in no case later than three years after the date such limitations are established and in no case later than March 31, 1989;
- (C) For all other BPT effluent limitations compliance is required from the date of permit issuance.
- (ii) For conventional pollutants, the best conventional pollutant control technology (BCT)—
- (A) For effluent limitations promulgated under section 304(b), as expeditiously as practicable but in no case later than three years after the date

- such limitations are promulgated under section 304(b), and in no case later than March 31, 1989.
- (B) For effluent limitations established on a case-by-case (BPJ) basis under section 402(a)(1)(B) of the Act in a permit issued after February 4, 1987, compliance as expeditiously as practicable but in no case later than three years after the date such limitations are established and in no case later than March 31, 1989;
- (iii) For all toxic pollutants referred to in Committee Print No. 95–30, House Committee on Public Works and Transportation, the best available technology economically achievable (BAT)—
- (A) For effluent limitations established under section 304(b), as expeditiously as practicable but in no case later than three years after the date such limitations are promulgated under section 304(b), and in no case later than March 31, 1989.
- (B) For permits issued on a case-bycase (BPJ) basis under section 402(a)(1)(B) of the Act after February 4, 1987 establishing BAT effluent limitations, compliance is required as expeditiously as practicable but in no case later than three years after the date such limitations are promulgated under section 304(b), and in no case later than March 31, 1989.
- (iv) For all toxic pollutants other than those listed in Committee Print No. 95–30, effluent limitations based on BAT—
- (A) For effluent limitations promulgated under section 304(b) compliance is required as expeditiously as practicable, but in no case later than three years after the date such limitations are promulgated under section 304(b) and in no case later than March 31, 1989.
- (B) For permits issued on a case-bycase (BPJ) basis under Section 402(a)(1)(B) of the Act after February 4, 1987 establishing BAT effluent limitations, compliance is required as expeditiously as practicable but in no case later than 3 years after the date such limitations are established and in no case later than March 31, 1989.
- (v) For all pollutants which are neither toxic nor conventional pollutants, effluent limitations based on BAT—

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- (A) For effluent limitations promulgated under section 304(b), compliance is required as expeditiously as practicable but in no case later than 3 years after the date such limitations are established and in no case later than March 31, 1989.
- (B) For permits issued on a case-bycase (BPJ) basis under section 402(a)(1)(B) of the Act after February 4, 1987 establishing BAT effluent limitations compliance is required as expeditiously as practicable but in no case later than three years after the date such limitations are established and in no case later than March 31, 1989.
- (b) Statutory variances and extensions. (1) The following variances from technology-based treatment requirements are authorized by the Act and may be applied for under §122.21;
- (i) For POTW's, a section 301(h) marine discharge variance from secondary treatment (subpart G);
- (ii) For dischargers other than POTW's:
- (A) A section 301(c) economic variance from BAT (subpart E);
- (B) A section  $301(\hat{g})$  water quality related variance from BAT (subpart F); and
- (C) A section 316(a) thermal variance from BPT, BCT and BAT (subpart H).
- (2) The following extensions of deadlines for compliance with technology-based treatment requirements are authorized by the Act and may be applied for under §124.53:
- (i) For POTW's a section 301(i) extension of the secondary treatment deadline (subpart J);
- (ii) For dischargers other than POTW's:
- (A) A section 301(i) extension of the BPT deadline (subpart J); and
- (B) A section 301(k) extension of the BAT deadline (subpart C).
- (c) Methods of imposing technology-based treatment requirements in permits. Technology-based treatment requirements may be imposed through one of the following three methods:
- (1) Application of EPA-promulgated effluent limitations developed under section 304 of the Act to dischargers by category or subcategory. These effluent limitations are not applicable to the extent that they have been remanded or withdrawn. However, in the

- case of a court remand, determinations underlying effluent limitations shall be binding in permit issuance proceedings where those determinations are not required to be reexamined by a court remanding the regulations. In addition, dischargers may seek fundamentally different factors variances from these effluent limitations under §122.21 and subpart D of this part.
- (2) On a case-by-case basis under section 402(a)(1) of the Act, to the extent that EPA-promulgated effluent limitations are inapplicable. The permit writer shall apply the appropriate factors listed in §125.3(d) and shall consider:
- (i) The appropriate technology for the category or class of point sources of which the applicant is a member, based upon all available information; and
- (ii) Any unique factors relating to the applicant.
- [Comment: These factors must be considered in all cases, regardless of whether the permit is being issued by EPA or an approved State l
- (3) Through a combination of the methods in paragraphs (d) (1) and (2) of this section. Where promulgated effluent limitations guidelines only apply to certain aspects of the discharger's operation, or to certain pollutants, other aspects or activities are subject to regulation on a case-by-case basis in order to carry out the provisions of the Act.
- (4) Limitations developed under paragraph (d)(2) of this section may be expressed, where appropriate, in terms of toxicity (e.g., "the  $LC_{50}$  for fat head minnow of the effluent from outfall 001 shall be greater than 25%"). Provided, That is shown that the limits reflect the appropriate requirements (for example, technology-based or water-quality-based standards) of the Act.
- (d) In setting case-by-case limitations pursuant to §125.3(c), the permit writer must consider the following factors:
- (1) For BPT requirements: (i) The total cost of application of technology in relation to the effluent reduction benefits to be achieved from such application;
- (ii) The age of equipment and facilities involved;

- (iii) The process employed;
- (iv) The engineering aspects of the application of various types of control techniques;
  - (v) Process changes; and
- (vi) Non-water quality environmental impact (including energy requirements).
- (2) For BCT requirements: (i) The reasonableness of the relationship between the costs of attaining a reduction in effluent and the effluent reduction benefits derived;
- (ii) The comparison of the cost and level of reduction of such pollutants from the discharge from publicly owned treatment works to the cost and level of reduction of such pollutants from a class or category of industrial sources;
- (iii) The age of equipment and facilities involved:
  - (iv) The process employed;
- (v) The engineering aspects of the application of various types of control techniques;
  - (vi) Process changes; and
- (vii) Non-water quality environmental impact (including energy requirements).
- (3) For BAT requirements: (i) The age of equipment and facilities involved;
- (ii) The process employed;
- (iii) The engineering aspects of the application of various types of control techniques;
  - (iv) Process changes;
- (v) The cost of achieving such effluent reduction; and
- (vi) Non-water quality environmental impact (including energy requirements).
- (e) Technology-based treatment requirements are applied prior to or at the point of discharge.
- (f) Technology-based treatment requirements cannot be satisfied through the use of "non-treatment" techniques such as flow augmentation and instream mechanical aerators. However, these techniques may be considered as a method of achieving water quality standards on a case-by-case basis when:
- (1) The technology-based treatment requirements applicable to the discharge are not sufficient to achieve the standards;
- (2) The discharger agrees to waive any opportunity to request a variance

under section 301 (c), (g) or (h) of the Act; and

- (3) The discharger demonstrates that such a technique is the preferred environmental and economic method to achieve the standards after consideration of alternatives such as advanced waste treatment, recycle and reuse, land disposal, changes in operating methods, and other available methods.
- (g) Technology-based effluent limitations shall be established under this subpart for solids, sludges, filter backwash, and other pollutants removed in the course of treatment or control of wastewaters in the same manner as for other pollutants.
- (h)(l) The Director may set a permit limit for a conventional pollutant at a level more stringent than the best conventional pollution control technology (BCT), or a limit for a nonconventional pollutant which shall not be subject to modification under section 301 (c) or (g) of the Act where:
- (i) Effluent limitations guidelines specify the pollutant as an indicator for a toxic pollutant, or
- (ii)(A) The limitation reflects BAT-level control of discharges of one or more toxic pollutants which are present in the waste stream, and a specific BAT limitation upon the toxic pollutant(s) is not feasible for economic or technical reasons;
- (B) The permit identifies which toxic pollutants are intended to be controlled by use of the limitation; and
- (C) The fact sheet required by §124.56 sets forth the basis for the limitation, including a finding that compliance with the limitation will result in BAT-level control of the toxic pollutant discharges identified in paragraph (h)(1)(ii)(B) of this section, and a finding that it would be economically or technically infeasible to directly limit the toxic pollutant(s).
- (2) The Director may set a permit limit for a conventional pollutant at a level more stringent than BCT when:
- (i) Effluent limitations guidelines specify the pollutant as an indicator for a hazardous substance, or
- (ii)(A) The limitation reflects BAT-level control of discharges (or an appropriate level determined under section 301(c) or (g) of the Act) of one or more hazardous substance(s) which are

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present in the waste stream, and a specific BAT (or other appropriate) limitation upon the hazardous substance(s) is not feasible for economic or technical reasons:

(B) The permit identifies which hazardous substances are intended to be controlled by use of the limitation; and

- (C) The fact sheet required by §124.56 sets forth the basis for the limitation, including a finding that compliance with the limitations will result in BAT-level (or other appropriate level) control of the hazardous substances discharges identified in paragraph (h)(2)(ii)(B) of this section, and a finding that it would be economically or technically infeasible to directly limit the hazardous substance(s).
- (iii) Hazardous substances which are also toxic pollutants are subject to paragraph (h)(1) of this section.
- (3) The Director may not set a more stringent limit under the preceding paragraphs if the method of treatment required to comply with the limit differs from that which would be required if the toxic pollutant(s) or hazardous substance(s) controlled by the limit were limited directly.
- (4) Toxic pollutants identified under paragraph (h)(1) of this section remain subject to the requirements of §122.42(a)(1) (notification of increased discharges of toxic pollutants above levels reported in the application form).

(Clean Water Act, Safe Drinking Water Act, Clean Air Act, Resource Conservation and Recovery Act: 42 U.S.C. 6905, 6912, 6925, 6927, 6974)

[44 FR 32948, June 7, 1979, as amended at 45 FR 33512, May 19, 1980; 48 FR 14293, Apr. 1, 1983; 49 FR 38052, Sept. 26, 1984; 50 FR 6941, Feb. 19, 1985; 54 FR 257, Jan. 4, 1989]

## Subpart B—Criteria for Issuance of Permits to Aquaculture Projects

## §125.10 Purpose and scope.

- (a) These regulations establish guidelines under sections 318 and 402 of the Act for approval of any discharge of pollutants associated with an aquaculture project.
- (b) The regulations authorize, on a selective basis, controlled discharges which would otherwise be unlawful under the Act in order to determine

the feasibility of using pollutants to grow aquatic organisms which can be harvested and used beneficially. EPA policy is to encourage such projects, while at the same time protecting other beneficial uses of the waters.

(c) Permits issued for discharges into aquaculture projects under this subpart are NPDES permits and are subject to the applicable requirements of parts 122, 123 and 124. Any permit shall include such conditions (including monitoring and reporting requirements) as are necessary to comply with those parts. Technology-based effluent limitations need not be applied to discharges into the approved project except with respect to toxic pollutants.

#### § 125.11 Criteria.

- (a) No NPDES permit shall be issued to an aquaculture project unless:
- (1) The Director determines that the aquaculture project:
- (i) Is intended by the project operator to produce a crop which has significant direct or indirect commercial value (or is intended to be operated for research into possible production of such a crop); and
- (ii) Does not occupy a designated project area which is larger than can be economically operated for the crop under cultivation or than is necessary for research purposes.
- (2) The applicant has demonstrated, to the satisfaction of the Director, that the use of the pollutant to be discharged to the aquaculture project will result in an increased harvest of organisms under culture over what would naturally occur in the area;
- (3) The applicant has demonstrated, to the satisfaction of the Director, that if the species to be cultivated in the aquaculture project is not indigenous to the immediate geographical area, there will be minimal adverse effects on the flora and fauna indigenous to the area, and the total commercial value of the introduced species is at least equal to that of the displaced or affected indigenous flora and fauna;
- (4) The Director determines that the crop will not have a significant potential for human health hazards resulting from its consumption;